

FIG. 1

Data	Code
00	101
01	100
10	001
11	010

FIG.2

Data	Code
00.00	101.000
00.01	100.000
10.00	001.000
10.01	010.000

FIG.3

	00	01	10	11
1	101/5	100/5	101/3	101/4
2	100/1	100/2	100/3	100/4
3	001/5	010/5	001/3	001/4
4	010/1	010/2	010/3	010/4
5	000/1	000/2	000/3	000/4

FIG.4

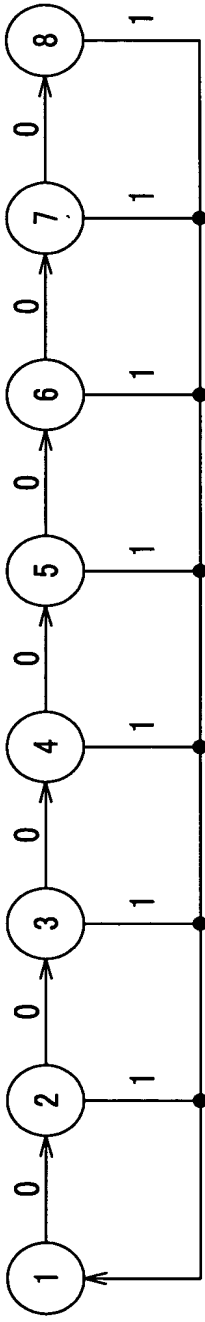


FIG.5

	00	01	10	11
1	010/1	010/2	010/3	100/3
2	100/1	100/2	101/3	101/4
3	000/1	000/2	001/3	001/4
4	010/1	010/2	010/3	000/3

FIG.6

Data	Code
("0") 11	101
("1") 11	000
10	001
01	010
00.11	010.100
00.10	010.000
00.01	000.100
00.00.11	000.100.100
00.00.10	000.100.000
00.00.01	010.100.100
00.00.00	010.100.000

[("0") MEANS THAT IMMEDIATELY PRECEDING BIT IS 0]

[("1") MEANS THAT IMMEDIATELY PRECEDING BIT IS 1]

FIG.7

Data	Code
00.00.10.00	000.100.100.100
00.00.00.00	010.100.100.100

FIG.8

Data	Code
11.01.11("010")	001.000.000

[("010") MEANS THAT IMMEDIATELY FOLLOWING BIT IS 010]

FIG.9

CODE CONVERSION TABLE	NO. OF STATES	CODE WORD CONSTRAINT LENGTH (IN BLOCKS)	ERROR PROPAGATION LENGTH (IN BITS)
FIGS. 2 AND 3 OR FIG. 4	5	3	5
FIG. 6	4	3	5
FIGS. 7 AND 8	104	5	10
FIGS. 7, 8 AND 9	1691	6	11

FIG. 10

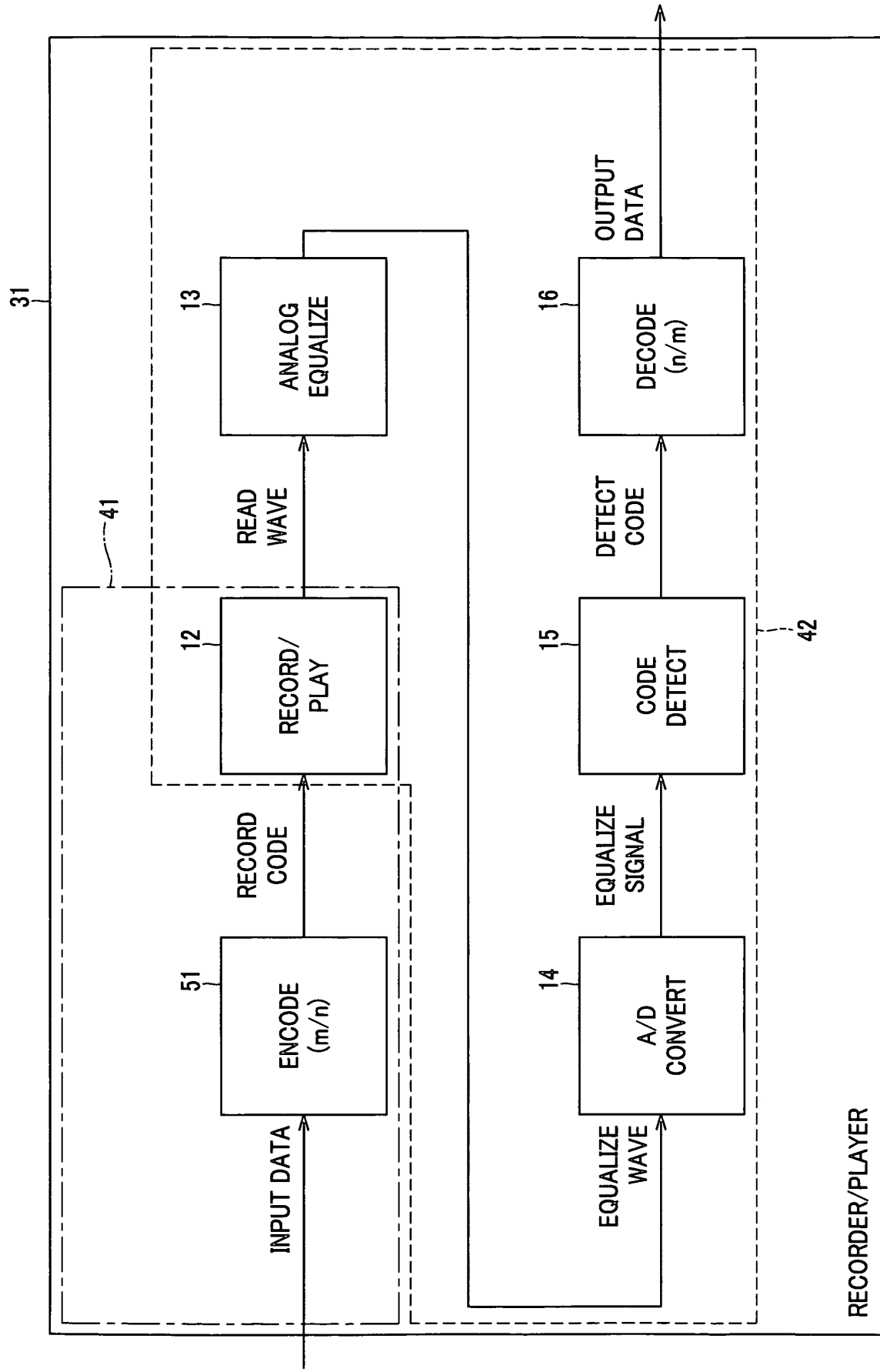


FIG. 11

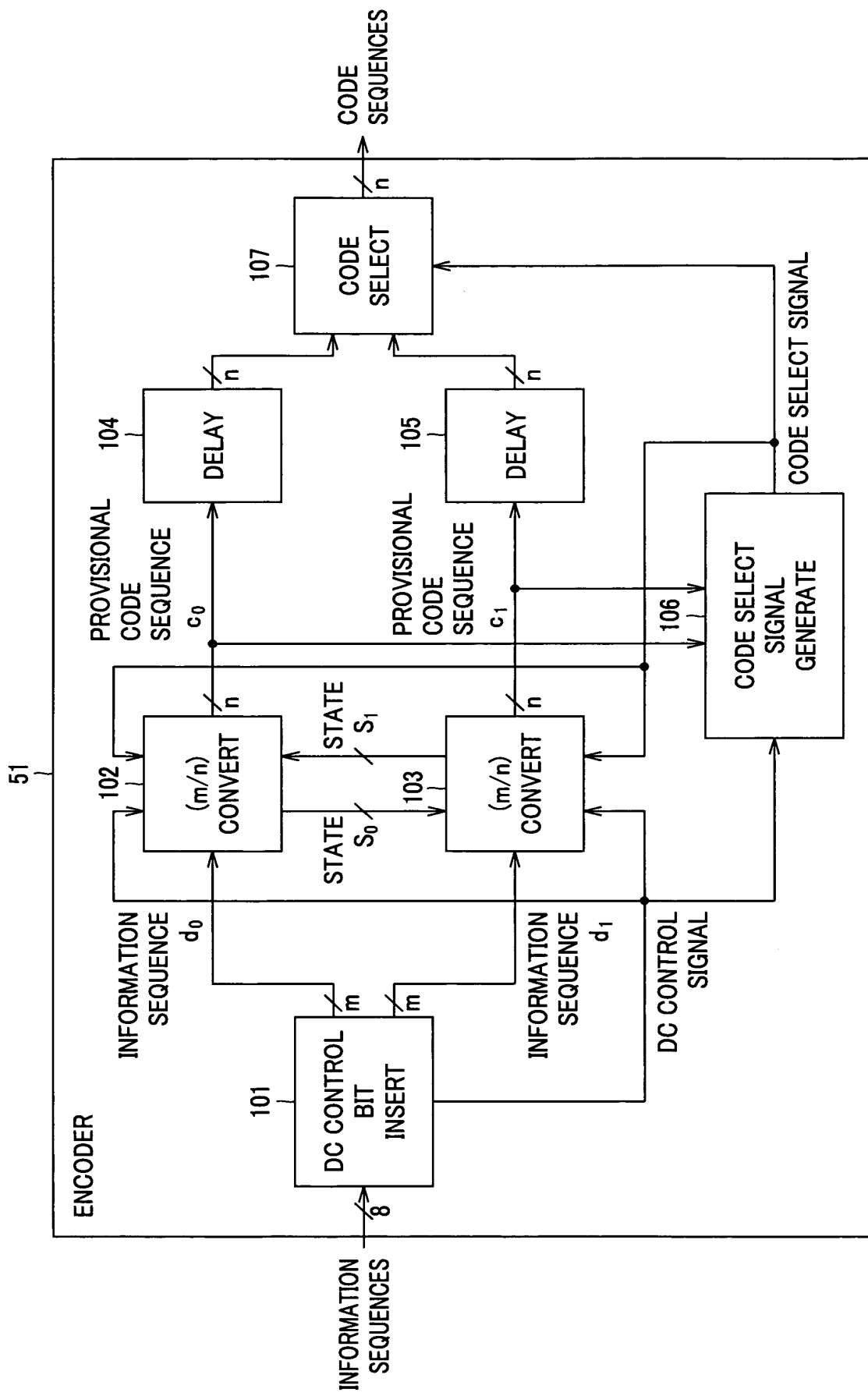


FIG.12

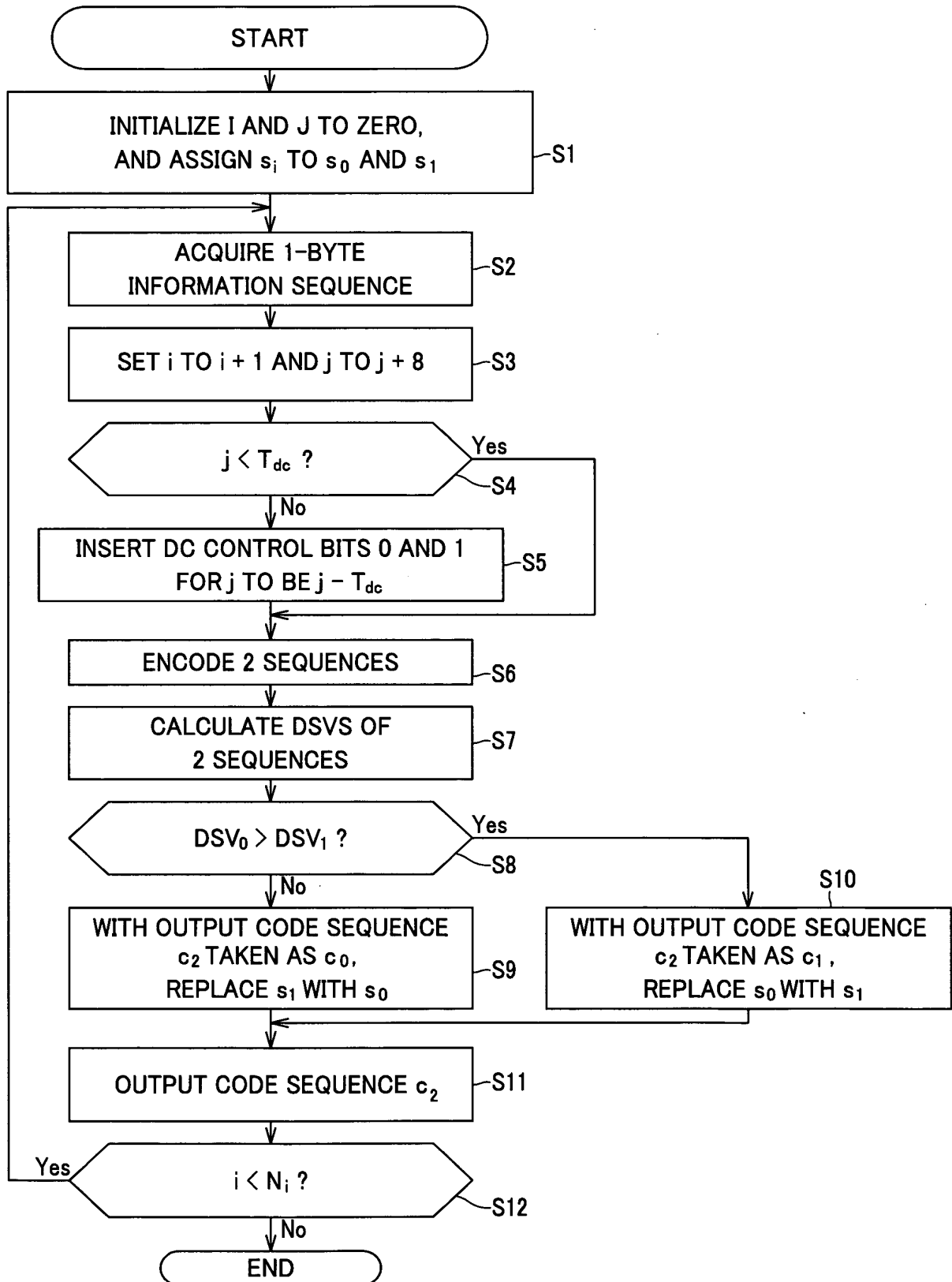


FIG. 13

INFORMATION SEQUENCE d_0	01	10	00	10
CODE SEQUENCE c_0	100	101	000	010
CODE STATE s_0	2	3	1	3
INFORMATION SEQUENCE d_1	11	10	00	10
CODE SEQUENCE c_1	101	010	000	010
CODE STATE s_1	4	3	1	3

FIG.14

1	010/3	010/6	100/3	100/6
2	010/3	010/6	000/3	000/6
3	000/1	000/4	000/5	000/7
4	010/1	010/4	010/5	010/7
5	100/1	100/4	100/5	100/7
6	001/2	001/3	001/4	001/6
7	101/2	101/3	101/4	101/6

FIG.15

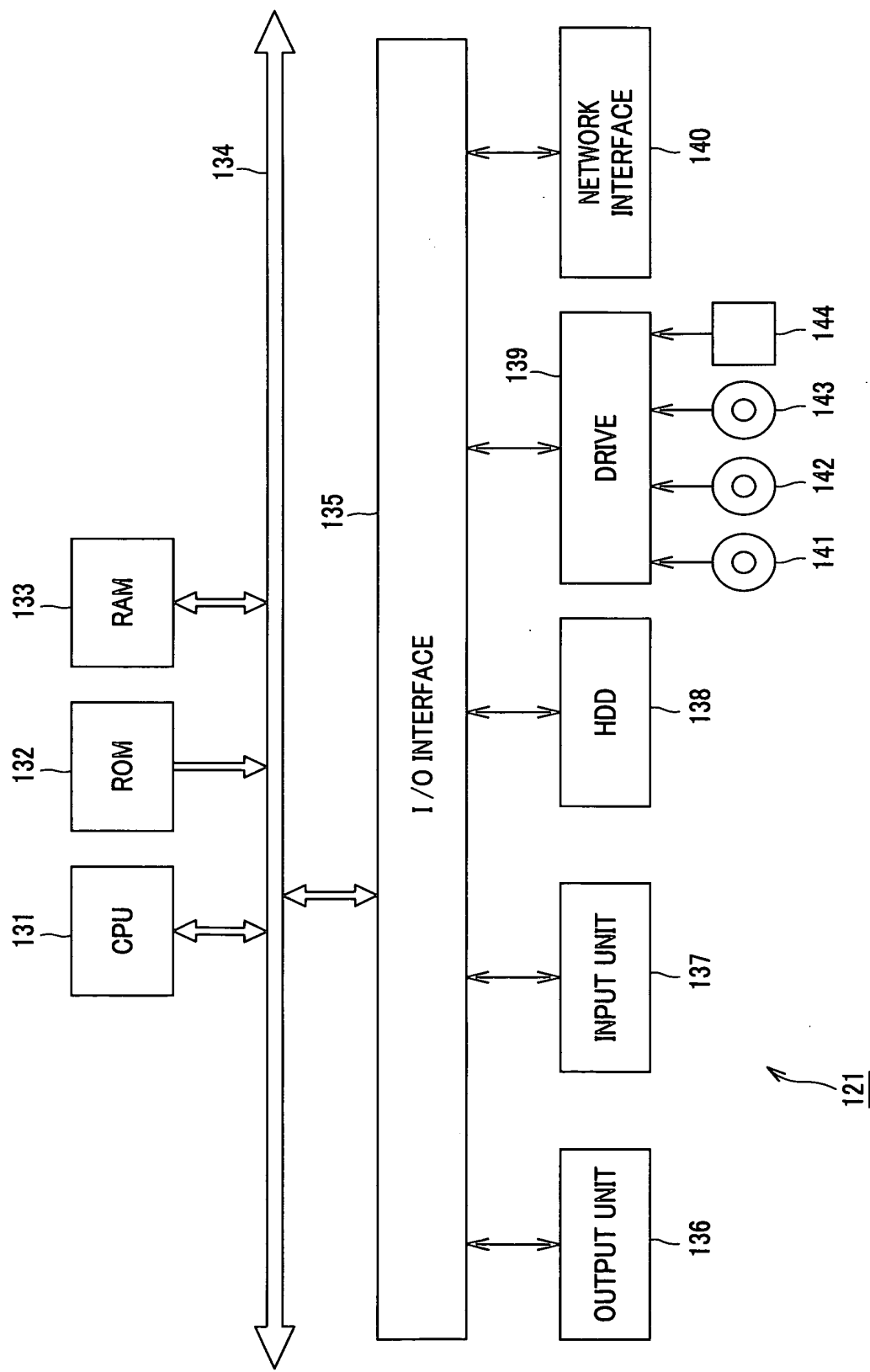


FIG. 16

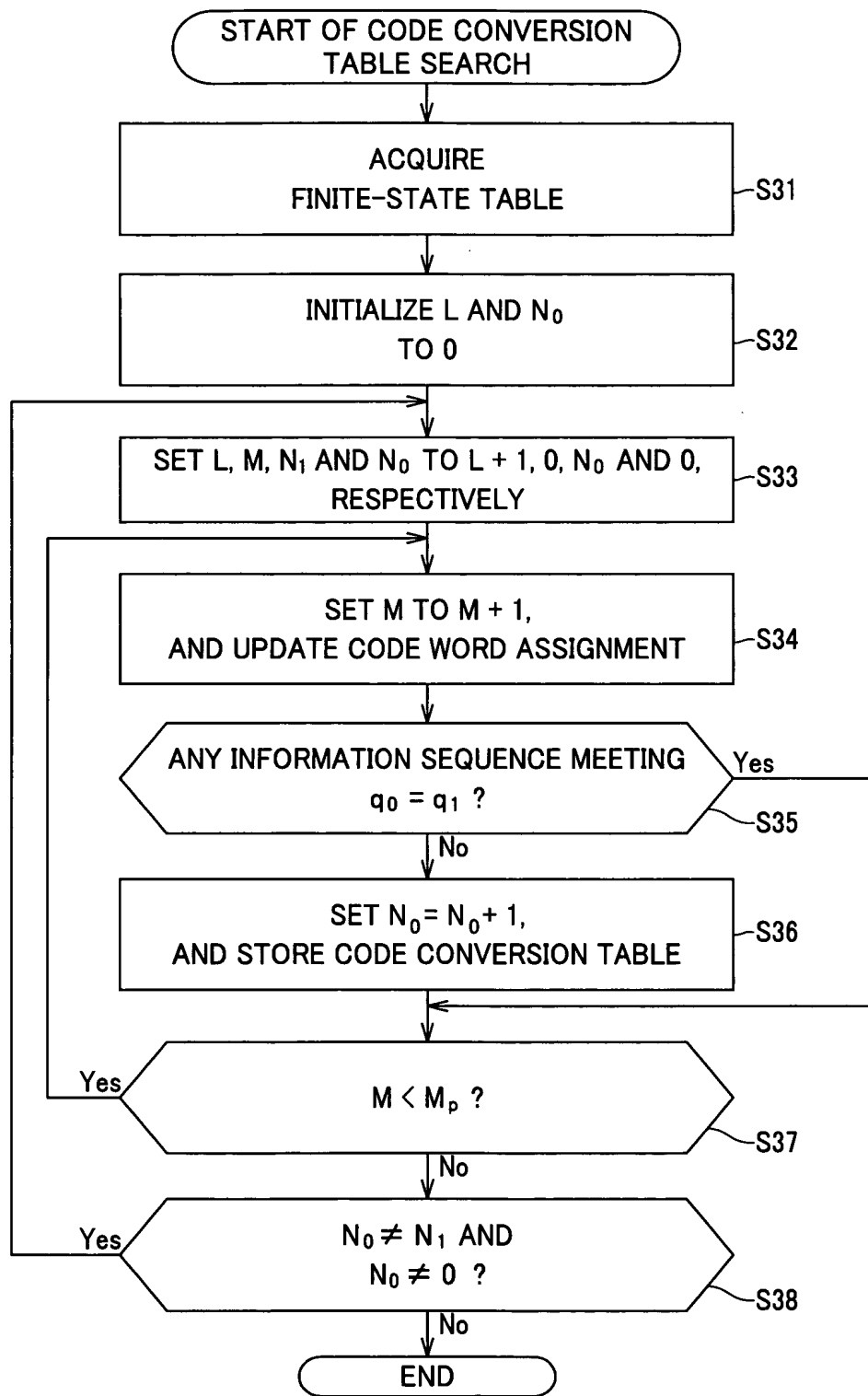


FIG. 17

L [IN BLOCKS]	N (L)	
	CONSTRAINT LENGTH 4	CONSTRAINT LENGTH 3
1	955,514,880	63,700,992
2	761,384,832	68,950,144
3	15,381,808	1,845,872
4	447,800	83,240
5	328,272	65,648
6	327,680	65,536
7	327,680	65,536

FIG. 18

TYPE	CONSTRAINT LENGTH 4	CONSTRAINT LENGTH 3
1	163,840	32,768
2	163,840	32,768
3	163,840	32,768

FIG. 19

	00	01	10	11
1	010/6	010/3	100/3	100/6
2	010/6	010/3	000/6	000/3
3	000/1	000/5	000/4	000/7
4	010/1	010/5	010/4	010/7
5	100/1	100/5	100/4	100/7
6	001/2	001/6	001/4	001/3
7	101/2	101/6	101/4	101/3

FIG.20

	00	01	10	11
1	010/3	010/6	100/6	100/3
2	010/3	010/6	000/3	000/6
3	000/5	000/1	000/7	000/4
4	010/5	010/1	010/7	010/4
5	100/5	100/1	100/7	100/4
6	001/6	001/2	001/3	001/4
7	101/6	101/2	101/3	101/4

FIG.21

	00	01	10	11
1	100/6	010/6	010/3	100/3
2	000/3	010/6	010/3	000/6
3	000/7	000/1	000/5	000/4
4	010/7	010/1	010/5	010/4
5	100/7	100/1	100/5	100/4
6	001/3	001/2	001/6	001/4
7	101/3	101/2	101/6	101/4

FIG.22

INFORMATION SEQUENCE d_0	01	10	00	10
CODE SEQUENCE c_0	000	100	001	001
CODE STATE s_0	1	6	6	3
INFORMATION SEQUENCE d_1	11	10	00	10
CODE SEQUENCE c_1	000	010	101	001
CODE STATE s_1	4	7	6	3

FIG.23

Data	Code
10	010
("0") 11	101
("1") 11	000
("0") 01	100
("1") 01	001
00.00	010.001
00.01	010.000
("0") 00.11	100.001
("1") 00.11	000.000
("0") 00.10	100.000
("1") 00.10	000.001

[("0") MEANS THAT IMMEDIATELY PRECEDING CODE BIT IS 0]

[("1") MEANS THAT IMMEDIATELY PRECEDING CODE BIT IS 1]

FIG.24

Data	Code
11	010
("0") 10	101
("1") 10	000
("0") 00	100
("1") 00	001
01.01	010.001
01.00	010.000
("0") 01.10	100.001
("1") 01.10	000.000
("0") 01.11	100.000
("1") 01.11	000.001

[("0") MEANS THAT IMMEDIATELY PRECEDING CODE BIT IS 0]

[("1") MEANS THAT IMMEDIATELY PRECEDING CODE BIT IS 1]

FIG.25

Data	Code
11	010
("0") 00	101
("1") 00	000
("0") 10	100
("1") 10	001
01.01	010.001
01.10	010.000
("0") 01.00	100.001
("1") 01.00	000.000
("0") 01.11	100.000
("1") 01.11	000.001

[("0") MEANS THAT IMMEDIATELY PRECEDING CODE BIT IS 0]

[("1") MEANS THAT IMMEDIATELY PRECEDING CODE BIT IS 1]

FIG.26

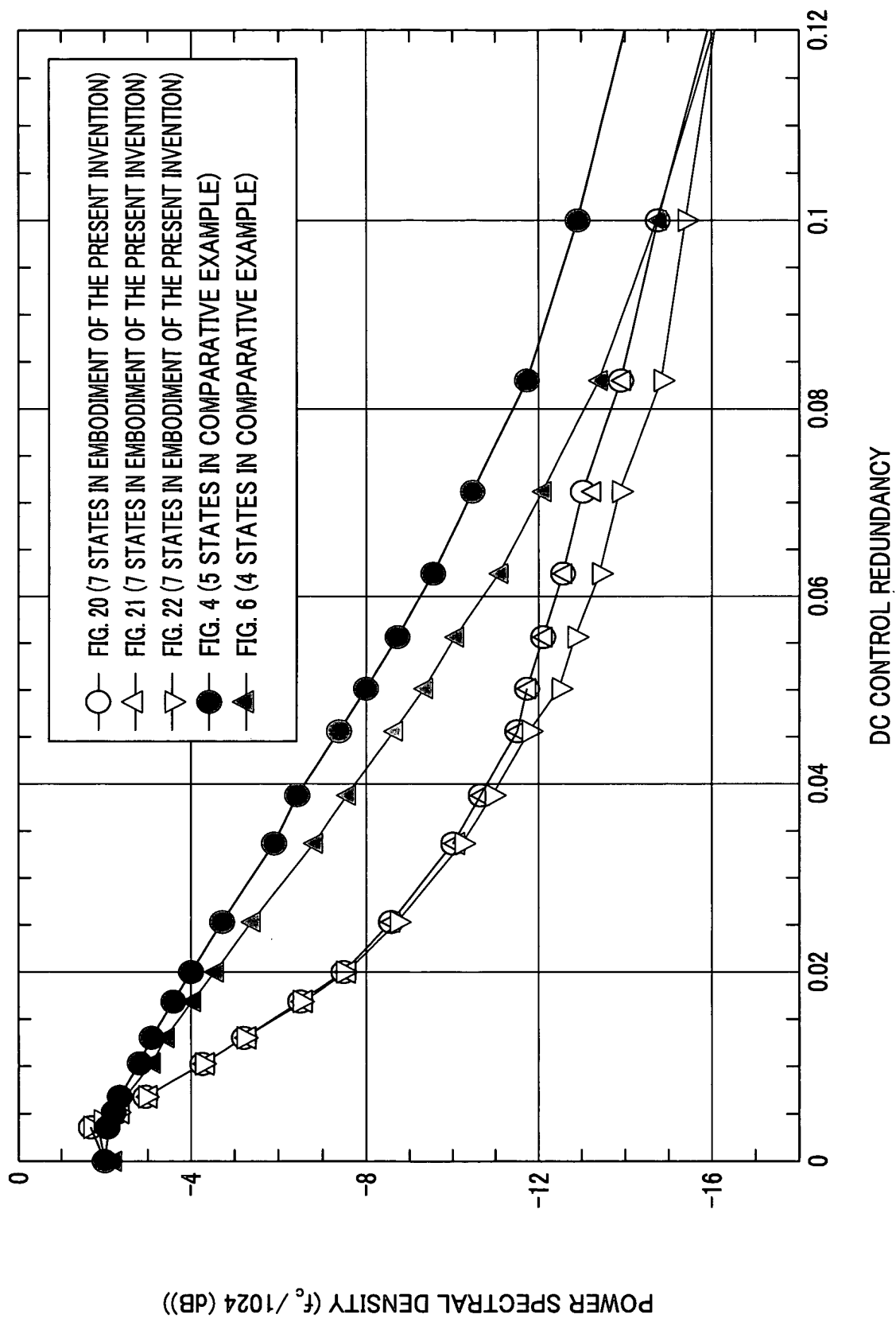


FIG.27

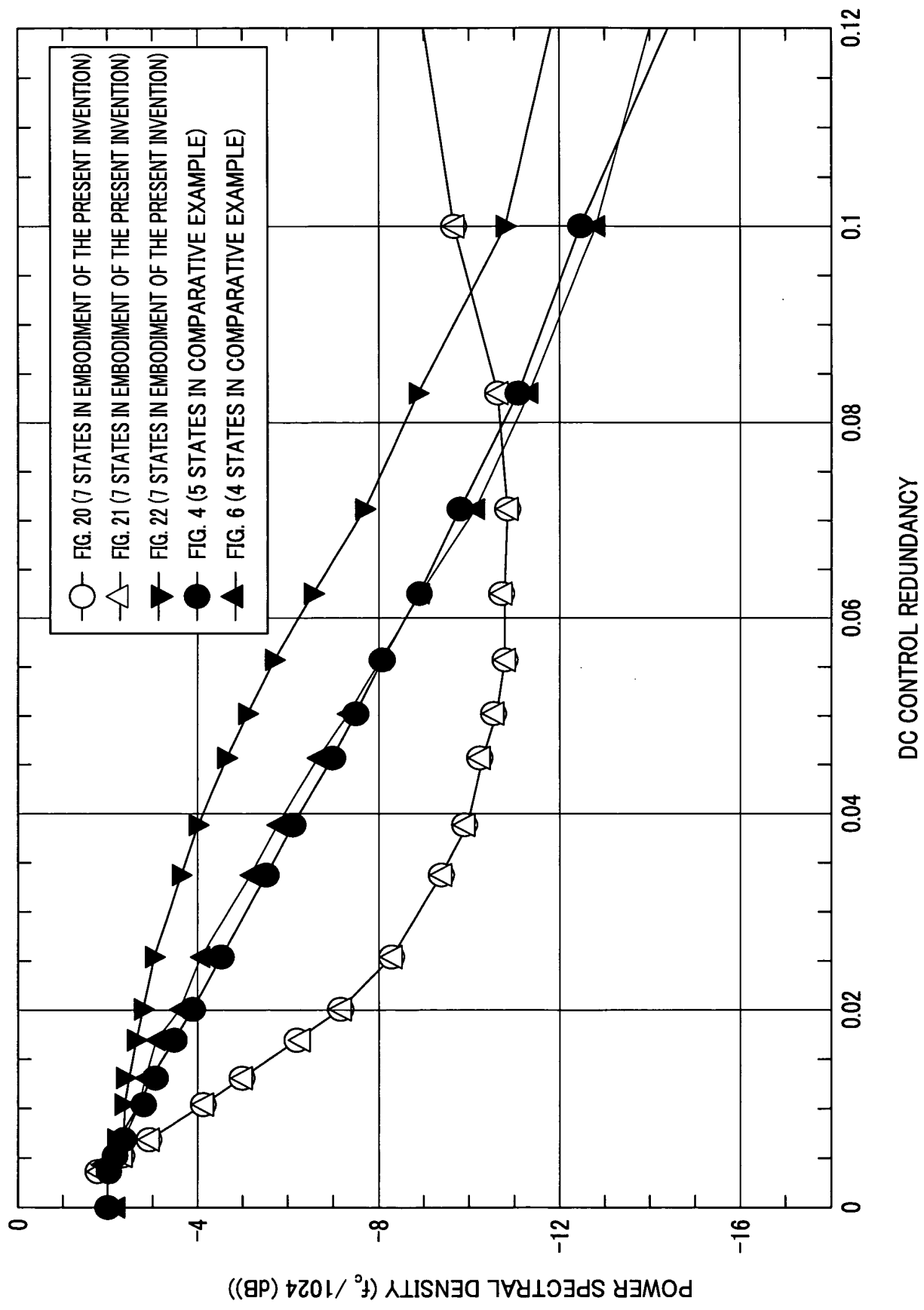


FIG.28

MAX. NO. OF MIN. RUNS IN SEQUENCE	SHANNON CAPACITY
1	0.6307
2	0.6623
3	0.6730
4	0.6769
5	0.6784
6	0.6789

FIG.29

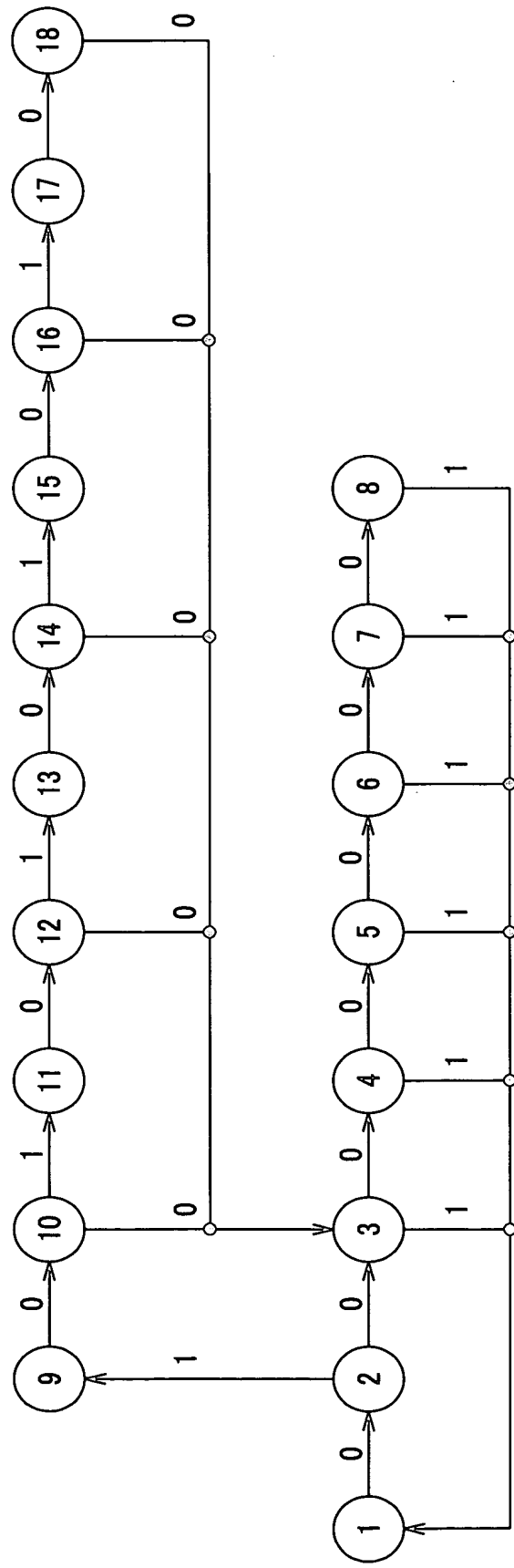


FIG.30

1	010/3	010/6	100/3	100/6
2	010/3	010/6	000/3	000/6
3	000/1	000/4	000/5	000/7
4	010/1	010/4	010/5	010/8
5	100/1	100/4	100/5	100/7
6	001/2	001/3	001/4	001/6
7	101/2	101/3	101/4	101/6
8	101/2	101/3	101/6	000/6

FIG.3 1

TYPE	CONSTRAINT LENGTH 5	CONSTRAINT LENGTH 4
1	389,120	4,096 (128)
2	389,120	4,096 (128)
3	389,120	4,096 (256)

FIG.32

	00	01	10	11
1	010/3	010/6	100/6	100/3
2	010/3	010/6	000/3	000/6
3	000/5	000/1	000/7	000/4
4	010/5	010/1	010/8	010/4
5	100/5	100/1	100/7	100/4
6	001/6	001/2	001/3	001/4
7	101/6	101/2	101/3	101/4
8	101/6	101/2	101/3	000/6

FIG.33

Data	Code
("010") 10.11	000.001

[("010") MEANS THAT IMMEDIATELY PRECEDING CODE WORD IS 010]

FIG.34

CODE CONVERSION TABLE	NO. OF STATES	CODE WORD CONSTRAINT LENGTH (IN BLOCKS)	ERROR PROPAGATION LENGTH (IN BITS)
FIGS. 20 TO 22	7	3	6
FIG. 33	8	4	7

FIG.35